

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
17 July 2003 (17.07.2003)

PCT

(10) International Publication Number
WO 03/057735 A1

(51) International Patent Classification⁷: **C08B 37/08**,
C08L 5/08

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(21) International Application Number: PCT/IB03/00024

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 8 January 2003 (08.01.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
P351602 9 January 2002 (09.01.2002) PL
P351603 9 January 2002 (09.01.2002) PL

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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Declaration under Rule 4.17:

— *of inventorship (Rule 4.17(iv)) for US only*

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Published:

— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 03/057735 A1

(54) Title: CHITOSAN-CALCIUM COMPLEX AND METHODS OF PRODUCING THE COMPLEX

(57) **Abstract:** Chitosan-calcium complexes of calcium (II) ions with a gel of a chitosan salt, containing not less than 0.5 wt % of the polymer with an average molecular weight not less than 10 kD, a polydispersity degree not lower than 2.0 and a deacetylation degree at least 65 %. The complex is characterized by pH not higher than 6.9 and a calcium Ca (II) ions content not less than 0.1 wt % on chitosan. Methods to prepare chitosan-calcium complexes use a gel of a chitosan salt, containing not less than 0.5 wt % of the polymer. Calcium salts are introduced in the amount of at least 0.1 wt % Ca (II) on chitosan weight. The mixture is next homogenized and reacted at 10°C during a time not shorter than 1 minute. Methods of producing a gel of chitosan salts involves subjecting a chitosan with the concentration of at least 0.5 wt% in an aqueous acidic solution to a controlled enzymatic, hydrolytic or oxidative degradation.